

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1-49. (Canceled)

50. (New) A method comprising:

receiving at a storage server, from a storage client, a client request to perform an operation relating to a data set stored by the storage server;

in response to receiving the client request, determining in the storage server whether to invoke a policy engine in relation to the client request, by determining whether the client request satisfies a specified criterion associated with a specified policy of the policy engine;

if the client request is determined not to satisfy a specified criterion associated with a specified policy of the policy engine, then satisfying the client request by the storage server without invoking the policy engine; whereas

if the client request is determined to satisfy a specified criterion associated with a specified policy of the policy engine, then

sending a screen request corresponding to the client request from the storage server to the policy engine to cause the policy engine to apply the specified policy in relation to the client request or the data set;

receiving at the storage server, from the policy engine, a screen response indicating a result of the policy engine having applied the specified policy in relation to the client request or the data set; and

sending a response to the client request from the storage server to the storage client in accordance with the screen response.

51. (New) A method as recited in claim 50, wherein the policy engine is implemented as a dedicated application server separate from the storage server.

52. (New) A method as recited in claim 50, further comprising:
sending information relating to the data set to the policy engine with the screen request.
53. (New) A method as recited in claim 52, wherein the information relating to the data set comprises metadata of the data set.
54. (New) A method as recited in claim 50, wherein the screen request comprises a remote procedure call (RPC).
55. (New) A method as recited in claim 50, wherein the storage server and at least a portion of the policy engine are implemented in a single physical platform.
56. (New) A method as recited in claim 50, wherein the client request is a request for a file managed by the storage server.
57. (New) A method as recited in claim 50, wherein the policy engine determines whether to approve or deny the screen request based on an identity of the storage client.
58. (New) A method as recited in claim 50, wherein the policy engine determines whether to approve or deny the screen request based on an identity of a user of the storage client.
59. (New) A method as recited in claim 50, wherein the policy engine determines whether to approve or deny the screen request based on an identity of the storage server.
60. (New) A method as recited in claim 50, wherein the policy engine determines whether to approve or deny the screen request based on a quota.

61. (New) A method as recited in claim 50, wherein the policy engine determines whether to approve or deny the screen request based on a number of times the data set has been accessed during a period of time.

62. (New) A method as recited in claim 50, further comprising:
using one of a plurality of storage protocols implemented by the storage server to access the set of data, the plurality of storage protocols including a block-level storage protocol and a file-level storage protocol.

63. (New) A system comprising:
a storage server; and
a policy engine, implemented as a dedicated application server separate from the storage server, coupled to communicate with the storage server;
wherein the storage server is configured to
receive a client request, from a storage client, to perform an operation relating to a data set stored by the storage server;
determine whether to invoke a policy engine, in response to receiving the client request, by determining whether the client request satisfies a specified criterion associated with a specified policy of the policy engine;
satisfy the client request, without invoking the policy engine, if the client request is determined not to satisfy a specified criterion associated with a specified policy of the policy engine;
invoke the policy engine, if the client request is determined to satisfy a specified criterion associated with a specified policy of the policy engine, by sending a screen request, corresponding to the client request, to the policy engine;
wherein the policy engine is configured to
receive the screen request from the storage server; wherein
the screen request is configured to cause the policy engine to apply the specified policy in relation to the client request or the data set; and

send a screen response indicating a result of the policy engine having applied the specified policy in relation to the client request or the data set;

receive the screen response from the policy engine; and

send a response to the storage client in accordance with the screen response.

64. (New) A system as recited in claim 63, wherein the storage server is further configured to:

send information relating to the data set to the policy engine with the screen request.

65. (New) A system as recited in claim 64, wherein the information relating to the data set comprises metadata of the data set.

66. (New) A system as recited in claim 63, wherein the screen request comprises a remote procedure call (RPC).

67. (New) A system as recited in claim 63, wherein the client request is a request for a file managed by the storage server.

68. (New) A system as recited in claim 63, wherein the policy engine is further configured to determine whether to approve or deny the screen request based on an identity of the storage client.

69. (New) A system as recited in claim 63, wherein the policy engine is further configured to determine whether to approve or deny the screen request based on an identity of a user of the storage client.

70. (New) A system as recited in claim 63, wherein the policy engine is further configured to determine whether to approve or deny the screen request based on an identity of the storage server.

71. (New) A system as recited in claim 63, wherein the policy engine is further configured to determine whether to approve or deny the screen request based on a quota.

72. (New) A system as recited in claim 63, wherein the policy engine is further configured to determine whether to approve or deny the screen request based on a number of times the data set has been accessed during a period of time.

73. (New) A system comprising:

a plurality of storage servers; and

a plurality of policy engines, each coupled to communicate with each of the storage servers;

wherein each of the storage servers is configured so that, in response to receiving a client request to perform an operation relating to a stored data set, the storage server responds by

determining whether at least one of the policy engines should be invoked in relation to the client request, by determining whether the client request satisfies a specified criterion associated with a specified policy of at least one of the policy engines;

if the client request is determined not to satisfy a specified criterion associated with a specified policy of at least one of the policy engines, the storage server responds by satisfying the client request; whereas

if the client request is determined to satisfy a specified criterion associated with a specified policy of at least one of the policy engines, the storage server responds by

sending a screen request corresponding to the client request from the storage server to at least one of the policy engines to cause at least one of the policy engines to apply a specified policy in relation to the client request or the data set; receiving at the storage server a screen response indicating a result of applying the specified policy; and sending a response to the client request from the storage server to the storage client in accordance with the screen response.

74. (New) A system as recited in claim 73, wherein the storage server is configured to select a particular one or more of the policy engines which should be invoked in response to determining that at least one of the policy engines should be invoked.

75. (New) A system as recited in claim 74, wherein the storage server stores a plurality of specified criteria associated with a corresponding plurality of specified policies, and wherein the storage server is configured to select at least one of the policy engines which should be invoked, based on which one or more of the specified criteria are satisfied by the client request.

76. (New) A system as recited in claim 74, wherein the storage server is configured to select at least one of the policy engines which should be invoked based on a round-robin selection scheme.

77. (New) A system as recited in claim 74, wherein the storage server is configured to select at least one of the policy engines which should be invoked based on a load-balancing scheme.

78. (New) A system as recited in claim 73, wherein each of the policy engines is dedicated to applying a different set of one or more policies.

79. (New) A system as recited in claim 73, wherein at least one of the policy engines is configured to apply a specified policy in a manner that is dependent on which storage server received the client request.
80. (New) A system as recited in claim 73, wherein at least one of the policy engines is configured to determine whether to apply a particular specified policy based on which storage server received the client request.
81. (New) A system as recited in claim 73, wherein at least one of the policy engines applies a specified policy based on an identity of a client which sent the client request.
82. (New) A system as recited in claim 73, wherein the plurality of policy engines are implemented as a cluster.
83. (New) A system as recited in claim 73, wherein at least one of the policy engines comprises a cluster.